AMENDMENTS TO THE SPECIFICATION

Please replace the paragraphs indicated with the following:

p. 5, newly added paragraph under Detailed Description:

In prior art filters, as shown in Fig. 1 and 2, ~~traps~~ transmission holes 10 are separated from each other a distance equal to D (Fig. 2) and a distance of 2D (Fig. 2) is placed between trap holes 12 and the nearest transmission hole 10. The precise distance is a design choice for achieving a specific performance. However, the need for trap holes with their requisite spacing requirements in a filter adds a significant constraint to the degree to which the filter can be made smaller.

p. 5, 2nd paragraph under Detailed Description:

Resonator 01 functions as a transmission pole by the coupling of ~~Z1~~ Z and C2, so that 01 can compose 5 transmission poles by cooperation with the other 4 transmission poles of 02, 03, 04 and 05. (See Figure 3)

p. 7, 1st full paragraph:

We can also apply the concepts of this new filter technology to a duplexer. Figures 7A-7B is an embodiment of a printed pattern duplexer of the present invention. Figure 6 is its equivalent circuit for a duplexer designed in accordance with another embodiment of the present invention. Figure 6 and Fig. 7A-7K show examples of new equivalent circuits and printed patterns, as applied to a duplexer. The duplexer of Fig. 6 and Figs. 7A-7B has eight (8) transmission poles including four (4) transmission poles 20, ~~01~~ four (4) transmission poles, 02, 03, 04 and 05, and three (3) trap resonators, including trap resonators 40 on each end of the duplexer and ~~01~~ trap resonator 01, but it can work as a filter with nine (9) transmission poles ~~including 01,~~ and three (3) trap resonators~~, also including 01~~ in which 01 serves as both a transmission pole and a trap resonator. In most cases, the higher band is the receiver band and the lower band is the transmitter band at the mobile phone terminal sides. These designations become reversed at the base station sides. However, it is noted that the relationship of the receiver band and the transmitter band, on the one hand, and the higher/lower bands on the other hand are not always consistent.

p. 8, Inserted paragraphs:

In particular, Figures 7C, ~~to~~ 7D, 7E, 7F, 7G, 7H, 7J, and 7K allow for the concept of a resonator 01 working as both a transmission pole and as a trap resonator. Such a resonator 01 allows for a duplexer that requires minimal space. The resonator 01 acts as a transmission pole and as a trap resonator because of the unique relationship between the capacitances of capacitance couplings C1, C2 and C3, in the manner as is described for Figures 4B and 7B above. The unique pattern of the duplexers allows for the resonator 01 to act as both a trap resonator and a transmission pole. In particular, Figures 7C ~~to~~ , 7D, 7E, 7F, 7G, 7H, 7J, and 7K show that using the inventive patterns taught in the present application, one may vary the number of transmission poles and trap holes as desired and still obtain a duplexer that is smaller in size than traditional duplexers because of a resonator acting as a trap hole and trap resonator.

Figure 7C and corresponding equivalent circuit in Figure 7D show 8 transmission poles 20 and a resonator 01, which acts as both a transmission pole and a trap resonator due to the relationship of capacitance couplings C1, C2 and C3 and inductance Z. Figure 7E and corresponding equivalent circuit in Figure 7F show 7 transmission poles 20, a trap resonator 40 and a resonator 01, which acts as both a transmission pole and a trap resonator due to the relationship of capacitance couplings C1, C2 and C3 and inductance Z. Figure 7G and corresponding equivalent circuit in Figure 7H show 5 transmission poles 20, 2 trap resonators 40 and resonator 01, which acts as both a transmission pole and a trap resonator due to the relationship of capacitance couplings C1, C2 and C3 and inductance Z. Figure 7J and corresponding equivalent circuit in Figure 7K show 5 transmission poles 20, a trap resonator 40 and a resonator 01, which acts as both a transmission pole and a trap resonator due to the relationship of capacitance couplings C1, C2 and C3 and inductance Z.

It should be noted that capacitance couplings C1, C2 and C3 work in a manner similar to that described for Figure 4B above to allow for resonator 01 to work as both a transmission pole and a trap resonator to allow for a reduced-size duplexer.

AMENDMENTS TO THE DRAWINGS

Applicant submits proposed replacement figures for figures 3, 6, 7D, 7F, 7H, 7K and 8A, which include the changes requested in the office action. Please note, reference "Z1" has been corrected to be reference "Z".